

A QUARTERLY PUBLICATION OF THE RADIOLOGICAL SOCIETY OF NORTH AMERICA RESEARCH & EDUCATION FOUNDATION

INSPIRE INNOVATE INVEST The Campaign for Funding Radiology's Future®

#### **R&E Medical Student Grants: A Critical** First Step for Medical Students and the Future of Innovation

Each spring, the R&E Foundation buzzes with activity as hundreds of grant applications are submitted, processed, and reviewed. While the overall number of grant applications has been on the rise for several years, the Research Medical Student Grant Program has exploded, from what was once a handful of applicants to a highly competitive program requiring experts in all areas of the radiologic sciences to assess and score the applications.

This burgeoning trend signifies two important cultural shifts in radiology: greater value being placed on research, and a new perspective on the importance of training young, bright-minded students how to conduct research. Together, these two principles will elevate radiology to the next level.

**Research Medical Student Grant recipients** spend at least 10 weeks directly involved in a research project, gaining valuable experience defining objectives, developing research skills, and testing hypotheses well in advance of making their final career choice. The investment of these young innovators is a true partnership with academic departments, as each project is guided by a dedicated scientific advisor/mentor and backed by the sponsoring department with matching financial support.

The Foundation funds 25 Research Medical Student Grants annually, with projects spanning numerous subspecialties, modalities, and institutions. An R&E Research Medical Student Grant is an outstanding first step on a research pathway and can also have a tre-

> mendous effect on professional career development.

According to 2013 FUJIFILM/RSNA Research Medical Student Grant recipient Holly Kokinda Nichols, MD, the impact is invaluable. "I am incredibly grateful to have been a recipient of the RSNA Medical Student Grant. This award has helped me not only by supporting my participation in a clinical research project which I am passionate about, but has also served as a stepping stone in



THE COMMITMENT CONTINUES. View full list of Centennial Pathfinders at RSNA.org/Campaign

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**Research Medical Student Grant Applications** 



my early career, helping me to achieve my other goals. I attended my first RSNA annual meeting in 2013 and presented the preliminary results of this project in my firstever platform presentation at a national conference," said Dr. Nichols. "Receiving this grant and my presentation of this project were favorite topics for my radiology residency interviewers, and undoubtedly played a role in matching at my first choice institution, Duke University. I am hopeful that this grant marks only the start of a long career in radiology and clinical research."

Every year, the number of past medical student grant recipients who receive subsequent grant funding, present their findings at conferences and in manuscripts, and serve on Foundation committees, study sections, and review panels increases significantly. For a relatively small investment, the Research Medical Student Grant Program pays off big.

*"I am incredibly grateful to have been a recipient of the RSNA Medical Student Grant. This award has helped* 



Scientific Advisor Charles Y. Kim, MD, with Holly Kokinda Nichols, MD

me not only by supporting my participation in a clinical research project which I am passionate about, but has also served as a stepping stone in my early career, helping me to achieve my other goals. I attended my first RSNA annual meeting in 2013, and presented the preliminary results of this project in my first-ever platform presentation at a national conference."

Holly Kokinda Nichols, MD

# **Investing with Time and Talents**

Past R&E grant recipients have long served as grant reviewers on the Foundation's study sections and this year is no exception: over 40% of the Foundation's study section members are past R&E grant recipients.

Additionally, a growing number of past recipients choose to provide further insights in other R&E volunteer roles.



Katherine A. Zukotynski, MD

Katherine A. Zukotynski, MD, 2012-2014 RSNA Research Scholar Grant recipient began her term as a member of the Foundation's Public Relations Committee earlier this year. "Serving on the R&E Public Relations Committee is a wonderful opportunity to give back to RSNA. The PR Committee offers the chance to get the word out about the positive impact of R&E programs and cutting-edge research," Dr. Zukotynski said.

Reed A. Omary, MD, a 1993

RSNA Research Resident Grant recipient and 1999-2001 Bracco Diagnostics/RSNA Research Scholar Grant recipient who joined the R&E Corporate Relations Subcommittee, noted, "Grant recipients add value to R&E committees because they can speak firsthand on how supporting the research of trainees and faculty is so beneficial to our specialty, and even more so, to our patients."

Interested in serving on an R&E committee or study section? Contact Sena Leach at *sleach@rsna.org* or 1-630-571-7810 to learn more about volunteer opportunities.

"Grant recipients add value to R&E committees because they can speak firsthand on how supporting the research of trainees and faculty is so beneficial to our specialty, and even more so, to our patients."

Reed A. Omary, MD



R&E grant recipients continue to grow their projects both in funding and innovation.

Using preliminary data obtained with his 2012 Bayer HealthCare/ RSNA Research Seed Grant, Rony Avritscher, MD, associate professor at the University of Texas MD Anderson Cancer Center, was recently granted an Individual Investigator Research Award of \$886,000 from the Cancer Prevention and Research Institute of Texas. Dr. Avritscher's project, "Imaging-based Quantitative Analysis of Vascular Perfusion and Tissue Oxygenation to Improve Therapy of Hepatocellular Carcinoma" will continue his initial research on the use of stem cells to enhance tumor destruction after radiofrequency ablation.

"Clearly, this achievement would not have been possible without RSNA's support. I am very grateful for that award and all the opportunities it has provided to my research team. I hope that this further demonstrates how much the Foundation's work benefits radiology research," Dr. Avritscher said.

Sean S. Park, MD, PhD, recently received an \$800,000 NIH/NCI R01 Award for his project, "A Phase II Evaluation of Stereotactic Ablative Radiotherapy in Oligometastatic Castration-Refractory Prostate Cancer and Immunogenicity of Stereotactic Ablative Radiotherapy."

"I would like to extend my sincere

gratitude to the RSNA R&E Foundation for its investment in junior faculty members such as myself. The R&E Foundation offers excellent opportunities—including the mentoring program, the Advanced Course in Grant Writing, and the Clinical Trials Methodology Workshop—that helped me design and refine this grant proposal. In addition, my 2013-2015 RSNA Research Scholar Grant served as a crucial stepping stone by providing research time and resources that allowed me to assemble the preliminary data. I highly value the relationships developed with my mentors both within and outside of my institution, and I hope someday to be able to assist junior faculty members in similar ways," Dr. Park said.



Front row, left to right: Katherine Dixon, RT; Amanda McWatters, BS; Nina M. Muñoz, PhD; Kiersten Maldonado, BS. Back row, left to right: Adeeb Minhaj, MSc; Charles Kingsley, AAS; Rony Avritscher, MD; Andrea Cortes, MSc.



Front Row, left to right: Michelle Adams, RTT; Keith Furutani, PhD; Sean Park, MD, PhD; Carolyn Schultz, RN; Ann Michel, CMD, RTT; Jody Dearth, RN; Thomas Whitaker, PhD. Back row, left to right: Lori Stevens, RTT; Jennifer Deweese, RTT; Jodi Buchholtz, RTT; Shawn Kehret, RTT.



Mary C. Mahoney, MD

## Past R&E Grant Recipient Named Department Chair

Congratulations to **Mary C. Mahoney, MD**, on her appointment as chair of the University of Cincinnati Department of Radiology and Ben Felson Endowed Chair of Radiology.

Dr. Mahoney received a 2012 Philips Healthcare/RSNA Research Seed Grant for her project "Choline Metabolite Radios as Markers of Human Breast Cancer." Dr. Mahoney is extremely active in organized radiology and currently serves on the RSNA Board of Directors as liaison for publications and communications and on the Board of Governors for the American Board of Radiology.



## International Scholars Broaden Goal to Support Radiology's Future

When **Yoshimi Anzai**, **MD**, and **Satoshi Minoshima**, **MD**, **PhD**, came to the United States, they didn't consider themselves trailblazers. Like many international scholars and professionals, they expected their route would take them back we deliver healthcare." Because of its significant potential, Dr. Minoshima says, the field carries cogent foundational value, especially during the current changing healthcare climate. For more than a century, radiology has been revolutionizing

to their native Japan better equipped for their future. More than two decades later, the path they continue to forge is, instead, equipping others to shape the future.

When Dr. Anzai speaks of her interest in radiology, her pioneering spirit is palpable. "Radiology keeps you keen and mentally agile. We cannot stay static, especially in such a rapidly advancing field," she explains. "There is always more to learn; new technology we must embrace to understand what is going on, and how to use it productively."



Yoshimi Anzai, MD, and Satoshi Minoshima, MD, PhD

While a Visiting Scholar

at the University of California, Los Angeles, during her early years in the field, Dr. Anzai embraced the opportunity to train with exceptional colleagues and welcomed encouragement to pursue research investigations. She, in turn, encouraged her husband to put his computer knowledge to work in radiology. Dr. Minoshima, who had been working during medical school in the then-emerging field of personal computer operating systems, had ambitions to become a hepatologic surgeon. "I was lured into radiology," he chuckles, and is quick to add that among the field's most gratifying attributes is its potential to affect positive change. Dr. Minoshima came to the University of Michigan to develop functional brain imaging technology.

"Radiology is crafting the future of healthcare," he explains. "It touches every service line and is central to how

"Radiology keeps you keen and mentally agile. We cannot stay static, especially in such a rapidly advancing field. There is always more to learn; new technology we must embrace to understand what is going on, and how to use it productively."

Yoshimi Anzai, MD

understanding and practice in medicine, says Dr. Minoshima, and he remains "very optimistic that the value of the field will only increase."

"Radiology is the answer," Dr. Anzai agrees. "The appropriate image at the right time enables the right care at the right time." The far-reaching impact of radiology on advancing accuracy and precision in patient care is "the real value," Dr. Minoshima says. His international perspective informs his belief that RSNA is "the most important radiologic society," working to advance the field

and make the future of patient care brighter.

RSNA "is the mothership of imaging science, technology, and innovation," Dr. Anzai said, affirming that she is continually inspired by the R&E Foundation's support of future scientists. With more than

two decades of shared commitment to RSNA, the couple recently joined the R&E Foundation Presidents Circle Program and became Bronze Visionary donors. Their decision

"You can just feel the energy and the need to support radiology."

Satoshi Minoshima, MD

to augment their support grew naturally from their passion for their work and admiration of the work of grant applicants witnessed by their participation in the Foundation's Radiology Research Study Section.

Dr. Anzai sees her involvement in the study section as a chance to be part of an important process to find faculty with great ideas and skills, and help them execute their research. "We cannot forget how important research is," Dr. Anzai said. "This is the backbone of science and the discipline of radiology." She appreciates the rigorous scientific backgrounds and understanding of science investigations her fellow study section members hold, and is energized by the talent she is helping to funnel to fruition. "It is exciting to see such amazing, talented faculty applying for funding to address the science."

Dr. Minoshima also volunteers his time to review grant applications as part of the same study section and shares his wife's enthusiasm for the promise the grant applications show. "The ideas are simply impressive," he says. "You can just feel the energy and the need to support radiology." Both Drs. Anzai and Minoshima feel it is time to give back, and that their active engagement in RSNA is creating pathways important to enabling the next generation of radiologists and imaging scientists to advance knowledge and practice in healthcare at large. Neither muses much about what would have happened had they returned to Japan as originally planned. "We must instead think about what imaging can do for the future," Dr. Anzai said.

### Be a Champion for Radiology's Future at your Practice Group and in your Community

Private practice radiology groups take philanthropy seriously. Be it funding for enhancements at local hospitals, participating in cancer awareness events, or donating to a variety of local charities, private practice groups

support organizations that positively impact the patients they serve. This commitment holds true for R&E Foundation support as well. Last year, private practice group giving to the Foundation's Visionaries in Practice (VIP) Program reached an all-time high with 37 practice groups donating \$550,000 to support R&E grant funding.

> Participating VIP donors support the Foundation

because they understand the importance of funding research that leads to technological and medical advances of the future. They see their VIP support as another way to positively affect their commu-



ect their communities through investments in radiologic research and development that will keep the specialty strong now and into the future.

Tax-deductible contributions to the R&E Foundation demonstrate steadfast group support of the specialty. Tiered giving begins at

Solution of the theter show:

- Talk to your colleagues about including the Foundation in your practice group's philanthropic efforts.
- Request brochures to hand out at an upcoming leadership meeting.
- Contact R&E staff member Robert Leigh at 1-630-590-7760 or *rleigh@rsna.org*.

#### Grant Recipients Develop Licensed PET Radiotracer



Steven Y. Cho, MD

While at Johns Hopkins University, 2008–2010 Bracco Diagnostics/ RSNA Research Scholar Grant recipient **Steven Y. Cho, MD**, performed a first-in-man clinical translational study of a first-in-class, first-generation low-molecular weight PSMA PET radiotracer, 18F-DCFBC, providing proof of concept for detection of metastatic prostate cancer with his mentor and 1996–1998 RSNA Research Scholar Grant recipient, **Martin G. Pomper, MD, PhD**. This proof-of-concept study paved the way for collaborative clinical translation of an improved second-generation low-molecular weight PSMA PET agent, 18F-DCFPyL, which has since been licensed by Progenics Pharmaceuticals, Inc.

Dr. Cho, now at the University of Wisconsin-Madison, is excited about the future of this class of PET radiotracers noting that several exciting upcoming collaborative clinical trials are planned or underway at Johns Hopkins University and the University of Wisconsin-Madison.

# Centennial Pathfinder Donation Honors Founding Trustee, Gold Medalist

Last fall, **Penelope (Penny) Kereiakes Pomeranz** and **Stephen J. Pomeranz, MD**, Cincinnati, chose to support the Inspire–Innovate–Invest Campaign and to honor Mrs. Pomeranz's father, **James G. Kereiakes, PhD**, with a Silver Centennial Pathfinder donation.

"The words 'inspire, innovate, invest' embody how Dr. Kereiakes lives his entire life. He is a national leader in medical physics, a great teacher, and a passionate investor in education," Mrs. Pomeranz said of her father, a founding member of both the R&E Fund (R&E Foundation) and the American Association of Physicists in Medicine (AAPM).

Dr. Pomeranz is grateful for his father-in-law's influence on his own career and, more importantly, his commitment to their family. At 92, Dr. Kereiakes remains an inspiring figure at the center of three generations of physicians, radiologists, radiologic physicists, and community servants. Dr. Kereiakes laid the pathway for the family's connection to RSNA, serving as a member and chairman of the Physics Scientific Program Committee,

**V** 

Helen and James G. Kereiakes, PhD

member of the Strategic Planning Committee, member of the R&E Visionaries Advisory Council, and third vice president of the Society. He and his wife **Helen** are

Platinum Visionary Donors to the R&E Foundation. A donation by Dr. Stephen and Penny Pomer-

anz to the Campaign for Funding Radiology's Future is a fitting way to honor an individual who is one of the few recipients of the AAPM William D. Coolidge Award, The Daniel Drake Award, and the RSNA Gold Medal.

Dr. Pomeranz describes his father-in-law as a "remarkable, multi-talented, brilliant, humble, and compassionate man."

*"Everyone passed their physics board certification when Dr. Kereiakes was teaching."* 

**Stephen Pomeranz, MD** 

passed their physics board certification when Dr. Kereiakes was teaching."

Dr. Pomeranz was drawn to radiology because it allowed him to cross boundaries into specialties such as orthopedics



From left to right: Corbin Pomeranz, MD, Taylor Pomeranz, Cody Pomeranz, Penny Pomeranz, Roni Sacks, Christy Pomeranz, MD, Stephen Pomeranz, MD, Jory Pomeranz and Kellen Pomeranz

His commitment to

education is long stand-

ing. He is a renowned

author and preeminent

the "go-to" teacher for

physics educator; he was

physics, and according to

Dr. Pomeranz, "Evervone

and neurology and today he is both a musculoskeletal radiologist and a neuroradiologist. In 1996, Dr. Stephen and Penny Pomeranz founded ProScan Imaging, Inc., a national and international radiology practice focusing on imaging innova-

tion with Penny Pomeranz serving as ProScan's director of public relations. Like Dr. Kereiakes, Dr. Pomeranz is a passionate educator and a leading authority in imaging education. The ProScan Imaging Education Foundation is the oldest free-standing MR fellowship, offering both year-long and visiting fellowships. The Foundation also provides a full range of ACCMEaccredited in-person and distance learning offerings and an extensive catalog of textbooks and resource materials.

Dr. Stephen and Penny Pomeranz have remained extremely active raising six children. They have cultivated a strong sense of community service within their children as well as

"Remarkable, multitalented, brilliant, humble, and compassionate man." Stephen Pomeranz, MD co-founding the Cris Collinsworth ProScan Fund (CCPF), a public non-profit organization committed to women's health and child devel-

opment through its Pink Ribbon Programs and Queen City Classic Chess Tournament. The CCPF's Pink Ribbon programs promote breast cancer awareness and education through community outreach, special events, and the ProScan Pink Ribbon Women's Centers in underserved areas of Ohio. In its fifteenth year, the Queen City Classic Chess Tournament is a treasured Cincinnati event that gives children of all backgrounds the opportunity to compete in a chess tournament in an NFL

"The words 'inspire, innovate, invest' embody how Dr. Kereiakes lives his entire life. He is a national leader in medical physics, a great teacher, and a passionate investor in education."

Penny Pomeranz

stadium. This annual springtime event is held at Paul Brown Stadium, Cincinnati.

The Pomeranz family is proud to be a part of the R&E Foundation and to continue the third generation of radiologists. Their oldest daughter, **Christy Pomeranz, MD**, a

graduate of Columbia University and Northwestern Medical School, is completing her residency at Weill Cornell Medical Center. Their oldest son, **Corbin Pomeranz** will graduate from Tulane Medical School this spring and enter radiology, and their daughter, **Taylor Pomeranz** will be a senior at the University of Cincinnati College of Medicine. Their three younger children pursued the arts. **Jory Pomeranz** is a graduate of Northwestern University and is a chef and writer in Cincinnati and New York. **Kellen Pomeranz**, also a graduate of Northwestern University, is a songwriter and producer in New York, and **Cody Pomeranz**, a graduate of Yale University, is a speech writer in Washington, D.C.

Dr. and Mrs. Pomeranz were blessed this November to welcome their first grandchild, **Penelope**, who is Dr. James Kereiakes' second great grandchild and first great granddaughter.

## **R&E Unveils New Legacy Giving Website**

Interested in making a lasting investment to the RSNA R&E Foundation? Visit our new website, *RSNA.org/LegacyGiving* to find out how. As you begin the journey to determine the best gift to fit your unique situation, our interactive website provides all of the tools you will need to make an informed decision.

On our site, you will be able to:

- Plan your gift based on the amount you would like to give, your age, or assets.
- Answer a few simple questions to be guided down a giving path.
- Learn about popular ways to give and how to fund your gift.



• Download brochures and watch videos to learn even more about different kinds of gifts.

- See your potential benefits with our Gift Illustrator.
- Download a free estate planning kit.

Visit the site often for the latest news on smart ways to support our mission! The Foundation appreciates your support and we want to hear from you.

Please visit *RSNA.org/LegacyGiving* or contact Robert Leigh at 1-630-590-7760 if you have questions, would like to share feedback, or to further discuss how you can support the RSNA Research & Education Foundation.



RADIOLOGICAL SOCIETY OF NORTH AMERICA 820 JORIE BLVD, OAK BROOK, IL 60523 RSNA.ORG/FOUNDATION

**Bayer Continues Investment in R&E Foundation Innovation** 

Bayer has generously approved a 2015 grant of \$75,000 to support the Inspire-Innovate-Invest Campaign. A Vanguard donor since 2004, Bayer has supported 11 R&E Foundation grants, furthering the research efforts of medical student grant recipients as well as seed and scholar grant recipients. Bayer's Radiology Division is a world-leading diagnostic



Jacob Agris, MD, and R&E Foundation Board Chairman Burton P. Drayer, MD

imaging solutions provider. With the combined power of Baver's former Medrad and Diagnostic Imaging units, the Radiology Division transforms insight into innovation to enable improved patient care in CT, MRI, PET, and interventional studies. Its comprehensive and continually evolving portfolio includes medical devices. contrast media, integrated dose-management software (radiation dose and contrast dose), and equipment service. Bayer offers customer solutions to help healthcare teams meet the challenging needs of today's radiology environment.

"Bayer in Radiology leads with innovation—from our roots in injectors and contrast research and development, to state-of-the-art equipment service and radiology informatics.



**You** Scientific research pursuits, such as our support of the R&E Foundation, is one of the cornerstones of that commitment. We have sponsored RSNA fellows to conduct research on contrastenhanced MRI for more than a decade. Bayer radiology is proud to support tomorrow's leaders and help improve patient care, both of which are shared goals of Bayer and the Foundation " Jacob Agric

Bayer and the Foundation," Jacob Agris, MD, medical director, Bayer, said.

"Bayer in Radiology leads with innovation—from our roots in injectors and contrast research and development, to state-ofthe-art equipment service and radiology informatics."

Jacob Agris, MD

#### Three Easy Ways to Give





